

10/529300

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IN THE CLAIMS:

Please amend the claims as shown below, in which deleted terms are shown with strikethrough and/or double brackets, and added terms are shown with underscoring. This listing of the claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (currently amended). An electronic key system for a vehicle ~~which includes, the~~  
electronic key system comprising a control apparatus (14) mounted on ~~an actual~~ the vehicle (100A) and  
an electronic key (12), wherein

the control apparatus includes a transmitting antenna,

the electronic key permits for transmitting transmission of a response signal (Sa) in response to  
receiving ~~of~~ a request signal (Sr) transmitted from said control apparatus (14) through a the  
transmitting antenna (72), ~~characterized in that and~~

said transmitting antenna (72) is installed in the proximity of the center of said ~~actual~~ vehicle  
(100A).

Claim 2 (currently amended). An electronic key system for a vehicle according to claim 1,  
~~characterized in that~~ wherein

said transmitting antenna (72) is installed at a position within a range from an upper portion of  
the vehicle to a lower portion of the vehicle, and within a range from a point at one fourth of a wheel  
base to another point at three fourths of a the wheel base (154) with reference to the center (150a) of a  
front wheel (150) of said ~~actual~~ vehicle (100A).

Claim 3 (currently amended). An electronic key system for a vehicle according to claim 1,

~~characterized in that~~ wherein

where said ~~actual~~ vehicle (100A) includes a seat (140) on which a user is to be seated,  
said transmitting antenna (72) is installed in the proximity of a front portion of said seat (140).

Claim 4 (currently amended). An electronic key system for a vehicle ~~which~~ includes a control  
apparatus (14) mounted on ~~an actual~~ the vehicle (100B) and an electronic key (12), wherein

the control apparatus comprises a transmitting antenna,

the electronic key permits transmission of ~~for transmitting~~ a response signal (Sa) in response to  
receiving of a request signal (~~Sr~~) transmitted from said control apparatus (14) through a the  
transmitting antenna (72), ~~characterized in that~~

said ~~actual~~ vehicle (100B) includes a seat (140) ~~provided for~~ which permits opening and closing  
movement ~~for being seated by a user~~ and a locking apparatus (64) for locking said seat (140) ~~so as not~~  
~~to be opened~~ to prevent opening of the seat until a unlocking instruction is supplied thereto; ~~that~~

said control apparatus (14) includes ~~means for verifying~~ a verifier which verifies the response  
signal (Sa) and a driver which outputs ~~outputting~~ an unlocking instruction to said locking apparatus  
(64) when it is discriminated that the response signal (Sa) is a request from a legal user; and ~~that~~

said transmitting antenna (72) is installed on said seat (140) or in the proximity of said seat  
(140).

Claim 5 (currently amended). An electronic key system for a vehicle according to claim 4,  
~~characterized in that~~ wherein said transmitting antenna (72) is provided on a left side face of said seat  
(140).

Claim 6 (currently amended). An electronic key system for a vehicle according to claim 4,  
~~characterized in that~~ wherein

~~where at least the vehicle comprises~~ a seat handle (144) which is used to manually open or  
close said seat (140) ~~by manual operation, and~~ is provided around a rear portion of said seat (140), and  
said transmitting antenna (72) is installed on said seat handle (144).

Claim 7 (new). An electronic key system for a vehicle, the electronic key system  
comprising a control apparatus mounted on the vehicle and an electronic key, wherein

the control apparatus includes a transmitting antenna,

the electronic key permits transmission of a response signal in response to receiving a request  
signal transmitted from said control apparatus through the transmitting antenna, and

said transmitting antenna is installed on the vehicle in a location which provides a transmission  
range which includes at least a space occupied by a vehicle operator during vehicle use.

Claim 8 (new). The electronic key system for a vehicle of claim 7 wherein the  
transmitting antenna is installed on the vehicle in a location which provides a transmission range  
including the entire vehicle.

Claim 9 (new). The electronic key system for a vehicle of claim 7 wherein initiation of  
operation of the vehicle is permitted only when the electronic key is within the transmission range, and  
wherein a warning is provided when the electronic key is moved out of the transmission range during  
operation of the vehicle.

Claim 10 (new). The electronic key system for a vehicle of claim 7 wherein the control apparatus and the electronic key communicate at regular intervals during operation of the vehicle.

Claim 11 (new). The electronic key system for a vehicle of claim 10 wherein a warning is issued by the control apparatus if communication between the control apparatus and the electronic key fails for a predetermined length of time.

Claim 12 (new). The electronic key system for a vehicle of claim 1 wherein said transmitting antenna is installed on the vehicle in a location which provides a transmission range including at least a space occupied by a vehicle operator during vehicle use.

Claim 13 (new). The electronic key system for a vehicle of claim 1 wherein said transmitting antenna is installed on the vehicle in a location which provides a transmission range including at least a space occupied by a vehicle operator during vehicle use, initiation of operation of the vehicle is permitted only when the electronic key is within the transmission range, and a warning is provided when the electronic key is moved out of the transmission range during operation.

Claim 14 (new). The electronic key system for a vehicle of claim 1 wherein the control apparatus and the electronic key communicate at regular intervals during operation of the vehicle.

Claim 15 (new). The electronic key system for a vehicle of claim 14 wherein a warning is issued by the control apparatus if communication between the control apparatus and the electronic key fails for a predetermined length of time.

## **IN THE ABSTRACT:**

Please amend the abstract as shown below, in which deleted terms are shown with strikethrough and/or double brackets, and added terms are shown with underscoring

### **ABSTRACT**

A vehicle-use electronic key system ~~comprising~~ includes a control unit  $[(14)]$  mounted on a real car  $[(100A)]$ , and an electronic key  $[(12)]$  for sending a response signal  $[(Sa)]$  on receiving a request signal  $[(Sr)]$  sent from the control unit  $[(14)]$  via a transmission antenna  $[(72)]$ , the antenna  $[(72)]$  being installed near the middle of the real car  $[(100A)]$ . Specifically, when a line segment (wheel base)  $[(154)]$  connecting the center  $[(150a)]$  of a front wheel  $[(150)]$  to the center  $[(152a)]$  of a rear wheel  $[(152)]$  is assumed, the transmission antenna  $[(72)]$  is installed in any location within a range from the upper part to the lower part of the real car  $[(100A)]$  within a range from a 1/4 point  $[(P1)]$  to a 3/4 point  $[(P2)]$  of the wheel base  $[(154)]$  with the center  $[(150a)]$  of the front wheel  $[(150)]$  as a reference.